

Title (en)

Grafted functionalized olefin polymer dispersant and uses thereof

Title (de)

Funktionalisierte Ppropolyolefindispersiermittel und Verwendungen davon.

Title (fr)

Dispersant du type polyoléfine greffé et fonctionnalisé, et ses utilisations.

Publication

EP 1669380 A2 20060614 (EN)

Application

EP 05257584 A 20051209

Priority

US 734604 A 20041209

Abstract (en)

A novel highly grafted, functionalized olefin polymer is provided comprising the reaction product of a method comprising reacting an acylating agent with a mixture comprising an olefin polymer having a number average molecular weight of between about 5,000 to about 100,000 and a diluent in the presence of a free radical initiator to provide an acylated olefin polymer which is further reacted with a polyamine to provide the grafted functionalized olefin polymer dispersant. Lubricating oil concentrates and compositions containing the highly grafted, functionalized olefin polymer and uses thereof also are provided.

IPC 8 full level

C08F 255/00 (2006.01); **C08F 8/00** (2006.01); **C08F 255/02** (2006.01); **C08F 255/06** (2006.01); **C08L 51/06** (2006.01); **C10M 149/00** (2006.01)

CPC (source: EP KR US)

C08F 8/10 (2013.01 - KR); **C08F 8/32** (2013.01 - EP US); **C08F 255/00** (2013.01 - EP US); **C08F 255/02** (2013.01 - EP US);
C08F 255/04 (2013.01 - EP US); **C08F 255/06** (2013.01 - EP US); **C08J 3/02** (2013.01 - KR); **C08L 51/06** (2013.01 - EP US);
C10M 149/02 (2013.01 - EP US); **C10M 2205/00** (2013.01 - EP US); **C10M 2205/022** (2013.01 - EP US); **C10M 2217/06** (2013.01 - EP US);
C10N 2020/02 (2013.01 - EP US); **C10N 2020/04** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/041** (2020.05 - EP US);
C10N 2030/06 (2013.01 - EP US); **C10N 2030/43** (2020.05 - EP US); **C10N 2030/54** (2020.05 - EP US); **C10N 2030/72** (2020.05 - EP US);
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C10N 2040/253 (2020.05 - EP US); **C10N 2040/255** (2020.05 - EP US); **C10N 2070/02** (2020.05 - EP US)

C-Set (source: EP US)

1. **C08F 8/32 + C08F 255/04**
2. **C08F 255/04 + C08F 222/06**
3. **C08L 51/06 + C08L 2666/02**
4. **C10M 2205/00 + C10N 2060/09**
5. **C10M 2205/022 + C10M 2205/028 + C10N 2060/09**
6. **C10M 2205/022 + C10M 2205/024 + C10N 2060/09**

Citation (applicant)

- US 4089794 A 19780516 - ENGEL LAWRENCE J, et al
- US 4137185 A 19790130 - GARDINER JOHN B, et al
- US 4146489 A 19790327 - STAMBAUGH ROBERT L, et al
- US 4320019 A 19820316 - HAYASHI KATSUMI
- US 4340689 A 19820720 - JOFFRION RALPH K
- US 4357250 A 19821102 - HAYASHI KATSUMI
- US 4382007 A 19830503 - CHAFETZ HARRY, et al
- US 4144181 A 19790313 - ELLIOTT ROBERT L, et al
- US 5932525 A 19990803 - NEY JOHAN [DE], et al
- US 5427702 A 19950627 - CHUNG DAVID Y [US], et al
- US 4863623 A 19890905 - NALESNIK THEODORE E [US]
- US 5075383 A 19911224 - MIGDAL CYRIL A [US], et al
- US 5556923 A 19960917 - CAINES TONY L [US], et al
- US 6107257 A 20000822 - VALCHO JOSEPH J [US], et al
- US 2695327 A 19541123 - KARL ZIEGLER, et al
- US 4973788 A 19901127 - LIN KAUNG-FAR [US], et al
- US 3576898 A 19710427 - BLAKE EDWARD S, et al
- US 3876720 A 19750408 - HEILMAN WILLIAM J, et al
- US 4172855 A 19791030 - GLUCKSTEIN MARTIN E [US], et al
- US 5284988 A 19940208 - SCHÄERL JR ROBERT A [US], et al
- US 5837773 A 19981117 - OLIVIER ERROL J [US], et al
- US 5384371 A 19950124 - CAINES TONY L [US], et al

Cited by

GB2446277A; GB2446277B; GB2441631A; GB2441631B; GB2453451B; GB2453451A; US8093189B2

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CN 1786132 A 20060614; JP 2006161042 A 20060622; KR 20060065491 A 20060614; SG 123693 A1 20060726; US 2006128875 A1 20060615;
US 7700684 B2 20100420

DOCDB simple family (application)

EP 05257584 A 20051209; AU 2005229689 A 20051103; CA 2522959 A 20051006; CN 200510129464 A 20051208; JP 2005340623 A 20051125;
KR 20050111832 A 20051122; SG 200507866 A 20051206; US 734604 A 20041209